DETAILED ACTION

Applicant's cancellation of claim 1 and amendment of claim 5, 8, 15, 18, 21, 24, 26, 31, 34, 35 and the addition of new claim 44 and 45, in the paper of 3/17/2011, is acknowledged. Claims 5, 8, 10-21, 23-27, 31, 34-45 are still at issue and are present for examination.

Applicants' arguments filed on 3/17/2011, have been fully considered and are deemed to be persuasive to overcome some of the rejections previously applied.

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

Claims 15-17, 24-27 and 34-43 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jodi Connolly on 5/20/2011.

The application has been amended as follows:

In claim 8, after "isolated prokaryotic DNA ligase polypeptide" insert "in the presence of a prokaryotic Ku polypeptide" and after "SEQ ID NO:91" insert "and

the prokaryotic Ku polypeptide has at least 95% amino acid sequence identity with the amino acid sequence of SEQ ID NO: 92".

Cancel claims 15-17.

In claim 18, after "isolated prokaryotic DNA ligase polypeptide" insert "in the presence of a prokaryotic Ku polypeptide" and after "SEQ ID NO:91" insert "and the prokaryotic Ku polypeptide has at least 95% amino acid sequence identity with the amino acid sequence of SEQ ID NO: 92".

In claim 21, after "isolated prokaryotic DNA ligase polypeptide" insert "in the presence of a prokaryotic Ku polypeptide" and after "SEQ ID NO:91" insert "and the prokaryotic Ku polypeptide has at least 95% amino acid sequence identity with the amino acid sequence of SEQ ID NO: 92".

Cancel claims 24-27, 31, 34-45.

Allowable Subject Matter

Claims 5, 8, 10-14, 18-21, 23 are allowed.

Reasons For Allowance

The following is an examiner's statement of reasons for allowance: The prior art does not teach or suggest a method of ligating nucleic acid molecules comprising contacting the nucleic acid molecule with an isolated prokaryotic DNA ligase

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polypeptide in the presence of a prokaryotic Ku polypeptide, wherein the prokaryotic DNA ligase polypeptide has at least 95% amino acid sequence identity with the amino acid sequence of SEQ ID NO: 91 and the prokaryotic Ku polypeptide has at least 95% amino acid sequence identity with the amino acid sequence of SEQ ID NO: 92.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard G. Hutson whose telephone number is 571-272-0930. The examiner can normally be reached on M-F, 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mondesi Robert can be reached on 571-272-0956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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rgh 5/21/2011

/Richard G Hutson/ Primary Examiner, Art Unit 1652